

^{10 pts.}
 (1 free HW)

How long is this going to last?

Mikenna K. - next wed, Beau

Brady D - 1 wk

Sydney M - 2 wks

James A. - 3 wks

Aaron R. - $2\frac{1}{2}$ wks

Hayley M - 4 days

Jose L - 3 days

(2 Free thw
 Last group standing)

→ Sabatage doesn't
 win bet

→ break up
 disruptive
 group and
 add assignment

→ If your group
 loses once, can't
 ever win

A snowboard rental company offers two different rental plans. Plan A offers no initial rental fee, just \$8.⁰⁰/hr. Plan B offers an initial fee of \$20.⁰⁰ then only \$4.⁰⁰/hr.

- A
- (a) Which plan is better if you snowboard for 4 hours?
 - (b) What are the most hours you can get for \$100.
12.5 or 20 hrs
 - (c) Write two equations that represent the cost for each plan.
Plan A $\Rightarrow y = 8x$ B $\Rightarrow y = 20 + 4x$
 $x = \text{hrs}$
 $y = \text{total cost}$
 - (d) Graph your two equations

Q.

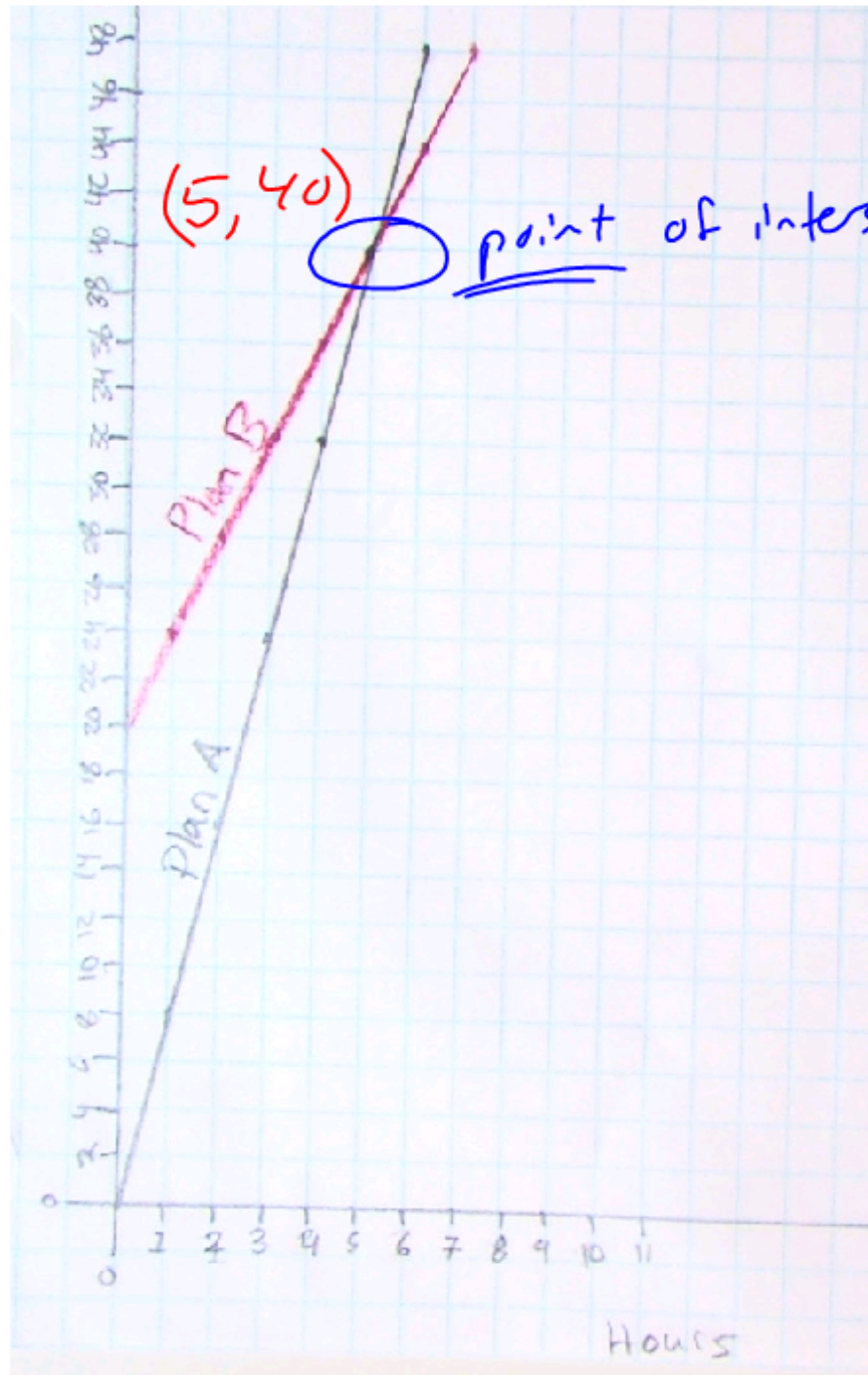
X	Y
Plan A	
1	8
2	16
3	24
4	32

X	Y
Plan B	
1	24
2	28
3	32
4	36

$$\frac{100}{8} = 12.5 \text{ hours}$$

$\checkmark 12.5 \times 8 = 100$

b) $100 - 20 = 80$
 $80 \div 4 = \underline{20}$
plane b



(5, 40) point of intersection → Same price at that # of hours.

$$y = 8x \rightarrow 8(\underline{5}) = \underline{40}$$

$$y = 20 + 4x \quad 20 + 4(\underline{5}) = \underline{40}$$

Skills

① solve for y

$$\textcircled{a} \quad \begin{array}{l} 3x + y = 5 \\ -3x \quad -3x \\ \hline y = 5 - 3x \end{array}$$

$$\textcircled{b} \quad \begin{array}{l} 2y - 3x = 7 \\ +3x \quad +3x \\ \hline y = \frac{7 + 3x}{2} \end{array}$$

$$\textcircled{c} \quad 3x - 4y = 8$$

$$\begin{array}{l} y = \frac{8 - 3x}{-4} \\ y = -2 + 0.75x \end{array}$$

② Evaluate if $x=1$ and $y=-2$

$$\textcircled{a} \quad \begin{array}{l} 2x + 4y \\ = -6 \end{array}$$

$$\textcircled{b} \quad \begin{array}{l} -3x - y \\ = -1 \end{array}$$

$$\textcircled{c} \quad \begin{array}{l} 5y - 5x \\ = -15 \end{array}$$

③ Find y if $x=2$

$$\textcircled{a} \quad \begin{array}{l} 3x + y = 7 \\ y = 1 \end{array}$$

$$\textcircled{b} \quad \begin{array}{l} y = -2x - 5 \\ y = -9 \end{array}$$

$$\textcircled{c} \quad \begin{array}{l} 4x - 2y = 3 \\ y = 2.5 \end{array}$$

1. Verify whether or not the given ordered pair is a solution to the system. If it is not a solution, explain why not.

a. $(-15.6, 0.2)$

$$\begin{cases} y = 47 + 3x \\ y = 8 + 0.5x \end{cases}$$

b. $(-4, 23)$

$$\begin{cases} y = 15 - 2x \\ y = 12 + x \end{cases}$$

c. $(2, 12.3)$

$$\begin{cases} y = 4.5 + 5x \\ y = 2.3 + 5x \end{cases}$$